

**REMARKS**

Claims 1 and 2 are independent and stand rejected under 35 U.S.C. § 103 as being unpatentable over Watanabe et al. '575 ("Watanabe") in view of Tani et al. '265 ("Tani") and JP '384 (rejection of claim 2 further relies on Fujikake et al. '286). These rejections are respectfully traversed for the following reasons.

In order to expedite prosecution, Applicants' representative initiated a telephone interview with Examiner McClelland. Applicants and Applicants' representative would like to thank Examiner McClelland for her courtesy in conducting the interview and for her assistance in resolving issues. During the interview, the Examiner maintained that Tani taught partial curing *broadly*, and that such a teaching is sufficient to make the claimed invention obvious. However, as noted during the interview, Tani is not relevant to the issues addressed by the present application with respect to the *specific* manner of localized partial curing processes (e.g., preventing resin from hardening or being pushed out in localized areas).

Indeed, one of the features of the present invention is directed to the *combination* of setting the partial heating/pressing parameters at localized areas of the prepreg to prevent resin from being pushed out or hardened at said localized areas. Turning to the pending rejection, the Examiner modifies Watanabe by incorporating the 2-step heating/pressing taught by JP '384. However, JP '384 is merely cumulative to Applicants' admitted prior art with respect to the disclosed high temperatures for the partial heat/press step. The Examiner therefore further relies on Tani as suggestive of maintaining the prepreg at B-stage.

However, even assuming *arguendo* that Tani discloses maintaining the resin at B-stage, it does so only for the entire substrate rather than localized areas. It is respectfully submitted that the cited prior art, alone or in combination, does not disclose the combination of partial heating/pressing *which keep the resin at B-stage at localized areas*, let alone suggest the

parameters needed to do so. Indeed, the present invention is directed to obviating the drawbacks which occur specifically at localized areas during the partial heat/press, which are not recognized nor considered by the prior art.

In order to clarify this distinction between the present invention and cited prior art, as discussed during the interview, claim 1 has been amended to recite in pertinent part, “wherein, the heating and pressing the given place are performed at a temperature higher than a softening point of a resin impregnated into the prepreg sheet so that the resin is kept in stage-B status, while the temperature *and pressure* of the pressing are set so that the resin *is not hardened and not pushed out of the prepreg sheet at the given place*” (emphasis added; support for the amendment can be found, for example, on page 12, line 17 – page 13, line 1 of Applicants’ specification). In contrast, as noted above, Tani at best discloses only keeping a resin in stage-B status over the entire substrate and is unrelated to maintaining stage-B status at a localized area of the substrate to prevent impregnated resin from being pushed out. Indeed, as Tani is unrelated to localized heat/press processes, the issues addressed by the present application (*see* Figure 7 of Applicants’ drawings) are not relevant to Tani. That is, in Tani, there is an even distribution of the heat/press over the entire substrate surface so that resin flow does not correspond to that which can occur at localized heat/press points as shown in Figure 7 of Applicants’ drawings.

In this regard, none of the cited prior art suggests the combination of heat and pressure parameters to prevent resin from being pushed out in a localized area of a prepreg. Moreover, there is no motivation to apply the Tani teachings to localized areas as Tani merely discloses a conventional two-step lamination process for the entire substrate, and does not recognize nor consider the issues related to localized pressure bonding in the initial lamination step. Indeed, the alleged mold-releasing sheet of Tani is etched rather than peeled away, further evidencing

that Tani is not relevant to heat/press parameters (of localized pressure points) which can prevent resin from being pushed out at localized areas. It is respectfully submitted that the enclosed amendment emphasizes this distinction by including "pressure" as a control parameter while identifying the "given place" as the area at which the resin is not pushed out.

The Examiner is directed to MPEP § 2143.03 under the section entitled "All Claim Limitations Must Be Taught or Suggested", which sets forth the applicable standard for establishing obviousness under § 103:

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (citing *In re Royka*, 180 USPQ 580 (CCPA 1974)).

In the instant case, the pending rejection does not "establish *prima facie* obviousness of [the] claimed invention" as recited in claims 1 and 2 because the proposed combination fails the "all the claim limitations" standard required under § 103.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as the independent claims are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

Based on the foregoing, it is respectfully submitted that all pending claims are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejections under 35 U.S.C. § 103 be withdrawn.

**CONCLUSION**

Having fully and completely responded to the Office Action, Applicant submits that all of the claims are now in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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